

MANHOLE RATING SYSTEM FOR THE OUTFALL SEWERSHED EVALUATION

The following criteria shall be used when establishing the rating of active sewer manholes:

1

MH should be in like-new condition with no visible signs of deterioration, defects, or significant signs of inflow and/or infiltration.

2

MH should only have minor defects that do not affect the sewer's flow characteristics or the structural condition of the MH. Only minor signs of inflow and/or infiltration should be visible.

3

MH should contain one or more of the following characteristics:
 Evidence of inflow (Leakage around frame and cover)
 Evidence of infiltration (Wall staining, etc.)
 Evidence of surcharging
 < 2 missing MH steps
 Frame offset < 4-inches
 Minor cracking of the MH cover
 < 20% missing or deteriorated bricks in the frame adjustment section
 Minor evidence of infiltration around the frame and/or frame adjustment section
 Light root intrusion (not affecting sewer flow)
 Light debris (not affecting sewer flow)
 Light grease (not affecting sewer flow)
 Minor cracks (not affecting the structural condition of the MH)
 Deterioration in only one (1) area of the MH

4

MH should contain a minimum of two or more of the following characteristics:
 Significant signs of inflow (Leakage around frame and cover)
 Evidence of multi-point infiltration (staining) or active infiltration
 Active surcharging of the MH
 3 or more missing MH entry steps
 Frame offset > 4-inches
 Cracked MH frame and/or cover
 > 20% missing or deteriorated bricks in the frame adjustment section
 Evidence of significant infiltration around the frame and/or adjustment section
 Medium root intrusion
 Heavy debris (affecting sewer flow)
 Heavy accumulation of grease (affecting sewer flow)
 Major cracks affecting the structural condition of the MH
 Missing bricks or other small portions of the MH
 Damage to bench affecting flow
 Structural deterioration in multiple areas

5

Manhole is in danger of failure or collapse
 Severe deterioration with voids/soil visible
 Active infiltration
 Missing MH cover or pieces of frame and/or cover
 Heavy root intrusion
 Active Sewer Overflow

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION

The criteria in the following example shall be used when establishing the rating of active sewer manholes:

1

MH should be in like-new condition with no visible signs of deterioration, defects, or significant signs of inflow and/or infiltration.



No Significant Defects, Deterioration, Inflow, or Infiltration

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION

The criteria in the following example shall be used when establishing the rating of active sewer manholes:

2

MH should only have minor defects that do not affect the sewer's flow characteristics or the structural condition of the MH. Only minor signs of inflow and/or infiltration should be visible.



Minor Signs of Infiltration



Minor Signs of Inflow

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION

The criteria in the following example shall be used when establishing the rating of active sewer manholes:

3

MH should contain one or more of the following characteristics:

Evidence of inflow (Leakage around frame and cover)

Evidence of infiltration (Wall staining, etc.)

Evidence of surcharging

< 2 missing MH steps

Frame offset < 4-inches

Minor cracking of the MH cover

< 20% missing or deteriorated bricks in the frame adjustment section

Minor evidence of infiltration around the frame and/or frame adjustment section

Light root intrusion (not affecting sewer flow)

Light debris (not affecting sewer flow)

Light grease (not affecting sewer flow)

Minor cracks (not affecting the structural condition of the MH)

Deterioration in only one (1) area of the MH



**Evidence of Inflow
(Leakage Around Frame and Cover)**



Evidence of Infiltration



Evidence of Surcharging



< 2 Missing MH Steps

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION



Frame Offset < 4-Inches



Minor Cracking of MH Cover



< 20% Deteriorated Bricks in the Frame Adjustment Section



Light Root Intrusion



Light Debris (Not Affecting Sewer Flow)



Light Grease (Not Affecting Sewer Flow)

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION



Minor Cracks (Not Affecting The Structural Condition of The MH)



Deterioration in Only One Area of The MH

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION

The criteria in the following example shall be used when establishing the rating of active sewer manholes:

4

MH should contain a minimum of two or more of the following characteristics:

- Significant signs of inflow (Leakage around frame and cover)
- Evidence of multi-point infiltration (staining) or active infiltration
- Active surcharging of the MH
- 3 or more missing MH entry steps
- Frame offset > 4-inches
- Cracked MH frame and/or cover
- > 20% missing or deteriorated bricks in the frame adjustment section
- Evidence of significant infiltration around the frame and/or adjustment section
- Medium root intrusion
- Heavy debris (affecting sewer flow)
- Heavy accumulation of grease (affecting sewer flow)
- Major cracks affecting the structural condition of the MH
- Missing bricks or other small portions of the MH
- Damage to bench affecting flow
- Structural deterioration in multiple areas



Active Inflow



Evidence of Multi-Point Infiltration



Active Surcharging



3 or More Missing Steps

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION



Frame Offset > 4-inches



Frame Cracked



Frame Cracked



**> 20% Deteriorated Brick In the MH
Frame Adjustment Section**



**Significant Infiltration Around Frame
and/or Adjustment Section**



Medium Root Intrusion

MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION



Heavy Debris (Affecting Sewer Flow)



Heavy Grease (Affecting Sewer Flow)



Major Crack Affecting Structural Condition and Contributing Infiltration



Missing Bricks



Multiple Structural Deterioration Affecting Sewer Flow



MANHOLE RATING EXAMPLES FOR THE OUTFALL SEWERSHED EVALUATION

The criteria in the following example shall be used when establishing the rating of active sewer manholes:

5

Manhole is in danger of failure or collapse
Severe deterioration with voids/soil visible
Active infiltration
Missing MH cover or pieces of frame and/or cover
Heavy root intrusion
Active overflow



Manhole is in Danger of Failure or Collapse



Severe Deterioration with Voids/Soil Visible



Missing MH Frame And Cover



Active Infiltration



Heavy Root Intrusion



Active Overflow